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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,083	10/10/2003	Wolfgang Rossner	5269-6	3055

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EXAMINER	
GUHARAY, KARABI	
ART UNIT	**PAPER NUMBER**
2879	

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Please find below and/or attached an Office communication concerning this application or proceeding.

ETC

Office Action Summary	**Application No.** 10/684,083	**Applicant(s)** ROSSNER ET AL.
	Examiner Karabi Guharay	**Art Unit** 2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Election, filed on 12/12/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *17-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/11/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

Applicant's election without traverse of Group I, including claims 1-16 in the reply filed on 12/12/2005, is acknowledged.

Claims 17-20 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 12/12/2005.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In this instant case, abstract contains more than 150 words.

Further "Fig 1" should be deleted appearing at the end of the abstract.

Claim Objections

Claim 5 is objected to because of the following informalities: Typographical error of "jim" should be changed to "μm" in each occurrence. Further "SOjim" should be changed to "50 μm".

Claim 14 is objected to because claim 14 depends from claim 13, "luminescent body" should be changed to "ceramic body" for better clarity of the claim.

Claims 7 & 16 are objected because as claims 7 & 16 are Markush type claim, it should be presented as the following example "selected from elements A, B and C" (see MPEM 803.02).

In this instant claims, "and/or" is used which should be changed to "and".

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-5 & 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 4 recites the broad recitation “above 90%”, and the claim also recites “at least 95%” which is the narrower statement of the range.

In the present instance, claim 5 recites the broad recitation “range of 1-100 micron inclusive”, and the claim also recites “10-50 micron” which is the narrower statement of the range.

Claim 16 recites the broad recitation “ impurity crystallites from the group of aluminum oxide, titanium oxide, YAG and Yttrium oxide within the ceramic body ”, and the claim also recites “in particular yttrium oxide as impurity crystallites”, which is the narrower statement of the limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, & 4-7, 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang et al. (US 20020084745).

Regarding claims 1, Wang et al. disclose a light source (see Fig 2a or Fig 3a) having at least one LED (10, 31) for emitting a primary radiation, and at least one luminescence conversion body (DPP, 60 & 36) for converting the primary radiation (blue light) into a secondary radiation, characterized in that the luminescence conversion body is a polycrystalline ceramic body (ceramic particle 120 made of silicon nitride or AlN) which it self acts partly or completely as luminescent material by virtue of at least part of the base material being activated by a dopant (Y, Ce, Gd, or ND based phosphor, see paragraph 31).

Regarding claim 2, Wang et al. disclose that the ceramic body (DPP 60) being translucent to the primary and to the secondary radiation (paragraph 35).

Regarding claim 4, Wang et al. disclose that the ceramic body (DPP 60, see Fig 2b) has a ceramic density of above 90% (paragraph 26 & 31).

Regarding claim 5, Wang et al. disclose that ceramic body (DPP 60) comprises crystallites having a mean diameter from the range of 1-100 micron (paragraph 38 & 43).

Regarding claim 6, Wang et al. disclose that the luminescent material is cerium – doped yttrium aluminum garnet (paragraph 45).

Regarding claim 7, Wang et al. disclose that the LED comprises a semiconductor material selected from GaInN and GaN (paragraph 34).

Regarding claim 12, Wang et al. disclose that the ceramic body (DPP 60) has at least one optical element (voids or pores) for influencing a beam path of the primary and secondary radiation (paragraph 32).

Regarding claim 13, Wang et al. disclose that the optical element (bubbles or voids) are arranged on at least one surface of the ceramic body (60, see Fig 2b).

Regarding claim 14, Wang et al. disclose that the luminescent body (DPP 36) formed as a lens (see Fig 3a).

Regarding claims 15-16, Wang et al. disclose that the optical element is formed of multiplicity of scattering center (bubbles or voids act as scattering center) comprising pores (paragraph 32).

Claims 1-3, 6-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Lowery (US 6504301).

Regarding claim 1, Lowery discloses a light source (Fig 2) having at least one LED (LED dies 22, 24) for emitting a primary radiation (lines 18-21 & 31-41of column 4), and at least one luminescence conversion body (fluorescent plate 52 of Fig 2) for converting the primary radiation (blue light) into a secondary radiation, characterized in that the luminescence conversion body (plate 52) is a polycrystalline ceramic body (YAG) which it self acts partly or completely as luminescent material by virtue of at least part of the base material (YAG) being activated by a dopant (Ce, Gd, lines 6-32 of column 6).

Regarding claims 2-3, Lowery discloses that the ceramic body plate 52 made of YAG) being translucent to the primary and to the secondary radiation (lines 1-2 of column 3 and lines19-32 of column 6), and since fluorescent member is optically transparent, inherently transmits more than 60% of secondary radiation.

Regarding claim 6, Lowery discloses that the luminescent material being a cerium-doped yttrium aluminum garnet (lines 20-21 of column 6).

Regarding claim 7, Lowery discloses that the LED has a semiconductor material selected from the group GAInN and GaN (lines 36-40 of column 4).

Regarding claims 8-9, Lowery discloses that the ceramic body is assigned to multiplicity of LEDs (Fig 2), and ceramic body being a carrier body of the LED.

Regarding claims 10-11, Lowery discloses a connecting layer (50) for fixedly connecting the LED and the ceramic body (52) being present between the LED and the ceramic body (see Fig 2), where the connecting layer is an adhesive (silicone gel, lines 45-55 of column 5).

Regarding claims 12-13, Lowery discloses that the ceramic body (64 of Fig 5) having at least one optical element (62, and optical elements, like several other rare earth metal for emission of other wavelengths, lines 33-41 of column 6) being arranged at least one surface of the ceramic body (64) for influencing a beam path of the primary and secondary radiation (lines 1-3 of column 7).

Regarding claim 14, Lowery discloses that the luminescent body or ceramic body is formed as a lens (see Fig 5).

Regarding claims 15-16; Lowery discloses that the optical element is formed from the multiplicity of scattering center comprising crystallites of YAG.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure : Stokes et al. (US 6791259).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karabi Guharay

Karabi Guharay
Primary Examiner
Art Unit 2879